

## Leren van incidenten bij het vervoer van gevaarlijke stoffen over de weg

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#### Problem

This research has been initiated because problems were seen in the way the government deals with road incidents involving dangerous goods. These problems were mainly observed with the current registration requirements from the law 'transport of dangerous goods'. It is insufficiently clear as to what takes place in the process of incident registration regarding the transport of dangerous goods by road. In this research I attempted to develop a complete picture of the way that the different departments of the ministry of transport deal with incident registration.

#### Research plan

To create clarity in the development of safety concerning incidents during transport of dangerous goods, a two way approach has been used. This research has investigated the organizational side and the registered incidents at the different departments. This has been reflected by using and applying some theories of safety management.

The research started by carrying out an inventory of the objectives of the different departments with incident registration of transport of dangerous goods. These different objectives have been processed in consultation between the departments to achieve a common objective. This research also analyses what the different departments are doing with incident reports and which actions are taken. Besides the organizational, actions the research focused on data collection and the possibility of sharing data between different departments.

#### Results

##### *Dual registration requirements causes confusion*

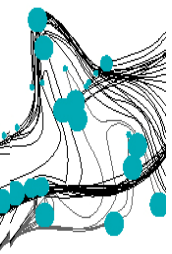
The outcomes of the research show that there exists confusion regarding the registration requirement. This exists both at the market and at government level. This is caused due to the fact that there are two different registration requirements according to the law, but both have different interpretations.

##### *National legislation conflict with international regulation*

In the international regulation (ADR) there are rules saying you can not ask more norms concerning the transportation of dangerous goods. In the national law (WVGS) the definition of incident registration is different. The national law conflicts there for with the international regulation.

##### *Departments must cooperate*

At the moment the different departments work with their own objectives concerning incident registration. During the research the different departments have agreed a common objective. Therefore the departments have the ambition to cooperate and raise the safety level.



#### *Insufficient interpretation to ambition to secure safety*

At the moment, the government gives no complete guarantee of security. This is a result of not passing all the requirements of the security chain. Moreover there is no permanent improvement as a result of incidents involving transport of dangerous goods. No action is undertaken to learn from incidents and prevent recurrence. The government is placed at the lowest step of the safety ladder of Hudson and Parker (the pathological safety level) whereas it expects of the market that they are at the middle step (reactive/calculating safety level).

#### *Data synthesis did not take place and does not lead to improvement*

Adding the different incident registration at the different department together gives no considerable surplus. This is due to the different objectives of the departments with the incident registrations. The information in the databases is inserted by the causer of the incident and has to be checked. However, it was noticed during this research that the different databases contained generally unique incidents. With the database the objective of incident registration can not be reached.

#### *No security diagnosis at transport of dangerous goods*

Due to the lack of useful incident data and lack of frame of reference it is impossible to carry out a safety diagnosis. The aim of learning from incidents, on the basis of recent developments, is not reached. These can only be learned from individual incidents. This is currently not the objective of the registration requirement by law.

### **Recommendation**

#### *To adapt legislation*

The confusion at the registration requirement of incidents concerning transport of dangerous goods can be clarified to choose a single registration requirement. The ministry has already chosen the registration requirement from the ADR. The consequences of this must be examined in more detail. There for a research to the missing of incidents and information of the given incidents have to be done.

#### *To develop univocal system for incident reports*

To create a total overview of incidents involving transport of dangerous goods, incidents have to be registered in one system. The system must obtain the parameters which are necessary to do a thorough analysis and identify the trends. To achieve this, a concept had been proposed in the conceptual design section of this report. This will require further investigation, where the involved actors are consulted.

#### *To develop a code of conduct*

To generate clarity to the market concerning who, which, what, when and how they have to do the registration of an incident, it is important to communicate to the market. Only adapting the law is not enough. The establishment of a code of conduct could be a good initiative to make thus successful.

*Generate a frame of reference*

To define the development of safety, it is important to have a reference. This comparison can be made by looking at lorry-incidents. A comparison of the difference in the causes of incidents between lorries with and without dangerous goods is useful.

*Carry out incident analysis*

To ensure a dataset with incident information it is important to do incident analysis. Because the in depth analysis causes of incidents are more reliable.

*Involve the sector in the incident registration process*

By only doing an analysis or survey, the government will not acquire any significantly new knowledge. There has to be a dialogue with the market to create a baseline. The sector has to adapt the new safety lines and instructions.

*Create a link between the incident database and the analysis done by the safety advisors*

The sector is obliged to investigate incidents. This obligation is defined in the ADR and directed to the safety advisor. The results are shown to the management board. Creating a link with the incident database gives more information of incidents. Of course the results have to be checked.

*Data enrichment with data of fire department and other environment regions*

In this research the data of the fire departments and the environmental regions are not taken in. The databases can give a mine of information. Especially, the number of incidents involving transportation of dangerous goods can be improved.

*Research the incident registration in the other countries of de ADR*

De incident registration is regulated in the ADR. The other countries are obliged to have an incident database to make the transport of dangerous goods safer. A recommendation is to investigate the way other countries handle with the incidents with dangerous goods.